

Variable axis points in tables during runtime



Question:

- Variable axis points in tables during runtime
- Calibration change of table during runtime
- I want to modify the axis points of a 1D (or 2D) table within my FC (function call) during runtime
- For example:
 - Before update:

X-Value	-20	0	20	40
Y-Value	0	1	2	3

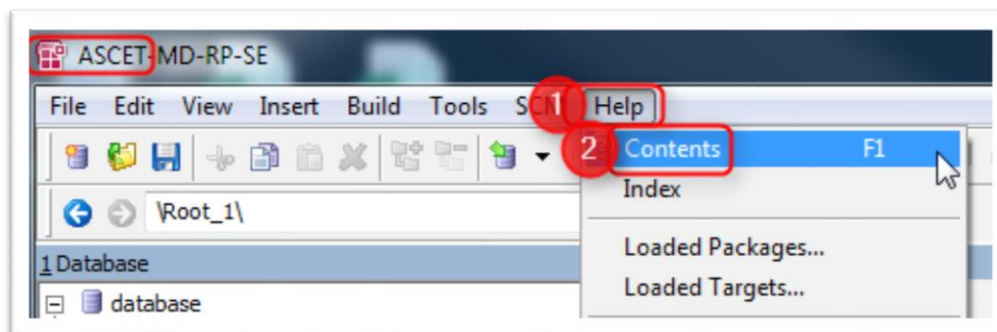
- After update:

X-Value	-20	5	20	40
Y-Value	0	1	1.2	3

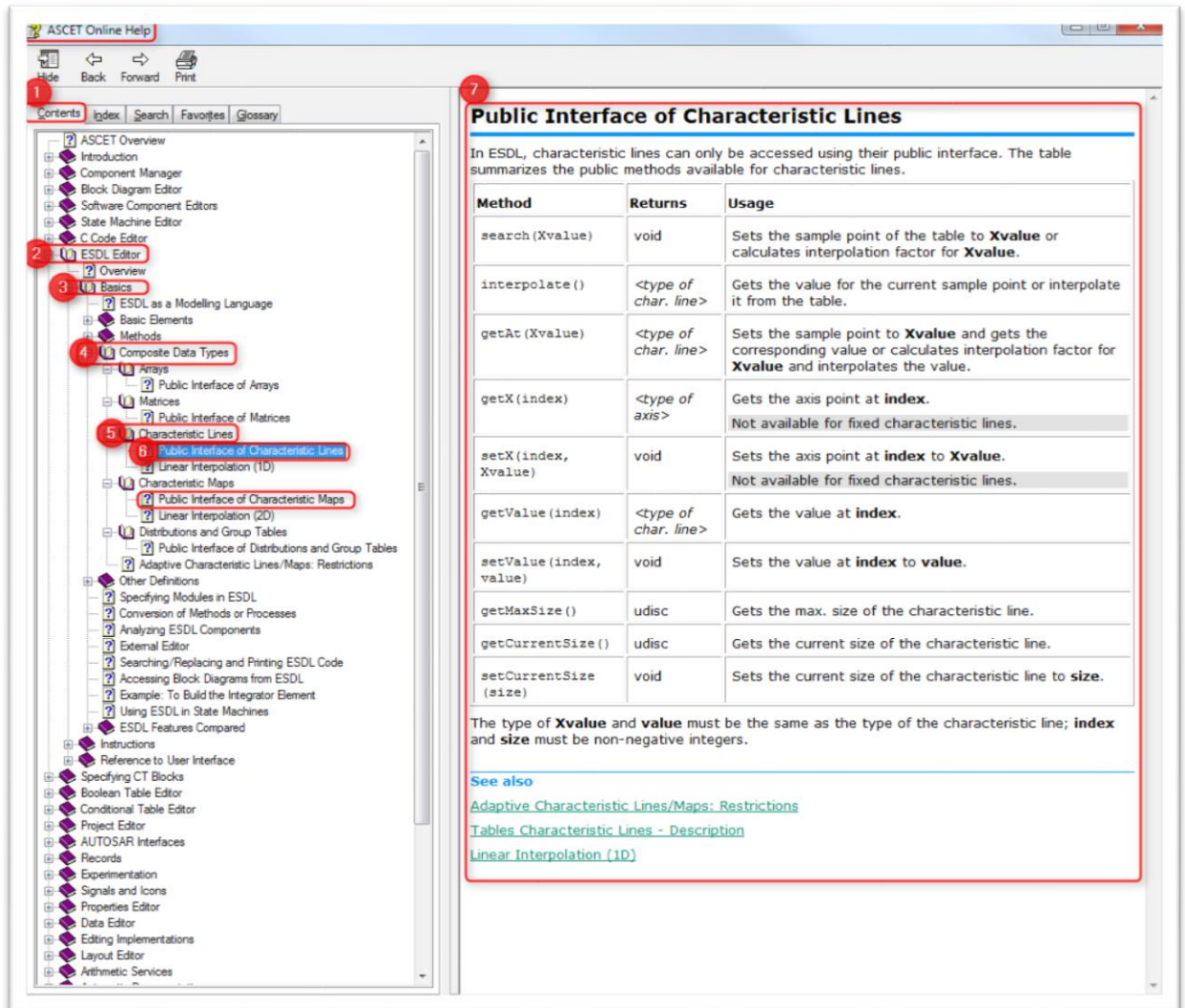


Answer:

- ASCET provides some ESDL macros/methods which allow to access and modify tables from within an ESDL class or module
 - There is method **setX(index, Xvalue)** which sets the axis point at index to Xvalue
 - There is method **setValue(index,value)** which sets the Y-value at the given index to value
- Please have a look at the ASCET Help articles like:
 - **Public Interface of Characteristic Lines** and
 - **Public Interface of Characteristic Maps:**
 - In ASCET > Menu bar > **Help > Contents**



- In dialog **ASCET Online Help > Tab Contents > ESDL Editor > Basics > Composite Data Types > Characteristic Lines > Public Interface of Characteristic Lines**



Public Interface of Characteristic Lines

In ESDL, characteristic lines can only be accessed using their public interface. The table summarizes the public methods available for characteristic lines.

Method	Returns	Usage
search(Xvalue)	void	Sets the sample point of the table to Xvalue or calculates interpolation factor for Xvalue .
interpolate()	<type of char. line>	Gets the value for the current sample point or interpolate it from the table.
getAt(Xvalue)	<type of char. line>	Sets the sample point to Xvalue and gets the corresponding value or calculates interpolation factor for Xvalue and interpolates the value.
getX(index)	<type of axis>	Gets the axis point at index . Not available for fixed characteristic lines.
setX(index, Xvalue)	void	Sets the axis point at index to Xvalue . Not available for fixed characteristic lines.
getValue(index)	<type of char. line>	Gets the value at index .
setValue(index, value)	void	Sets the value at index to value .
getMaxSize()	udisc	Gets the max. size of the characteristic line.
getCurrentSize()	udisc	Gets the current size of the characteristic line.
setCurrentSize(size)	void	Sets the current size of the characteristic line to size .

The type of **Xvalue** and **value** must be the same as the type of the characteristic line; **index** and **size** must be non-negative integers.

See also

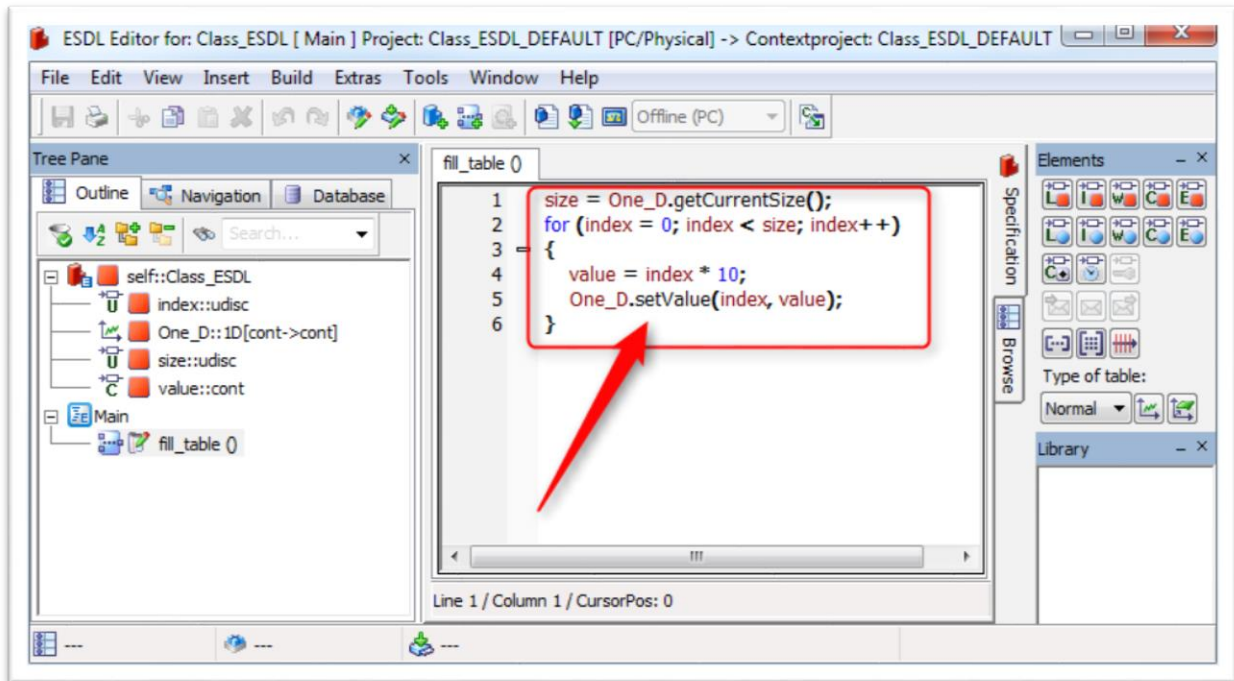
- [Adaptive Characteristic Lines/Maps: Restrictions](#)
- [Tables Characteristic Lines - Description](#)
- [Linear Interpolation \(1D\)](#)

- On the right side you can see a table of the publicly available methods with expected arguments and return data types and short description



Additional information:

- Example code regarding usage of these public interfaces, in this case: method **setValue(index, value)**:



Do you still have questions?

- You will find further FAQ here: www.etas.com/en/faq
- Please feel free to contact our Support Center, if you have further questions.
- Here you can find all information: <http://www.etas.com/en/hotlines.php>

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